

WHAT IS CLAIMED IS:

1 1. A method of providing a communications service in a
2 system including a calling party, a first receiving party
3 having a first computer and a first telephone device; and
4 a second receiving party having a second computer and a
5 second telephone device, the method comprising:

6 detecting a hook flash;

7 in response to detecting a hook flash,

8 transmitting call related data, at
9 least some of which was previously
10 provided to the first computer, to the
11 second computer; and

12 establishing a voice connection
13 between the calling party and the second
14 telephone device.

1 2. The method of claim 1, wherein the call related data
2 includes sales information.

1 3. The method of claim 1, wherein the step of detecting
2 a hook flash includes:

3 operating a telephone switch coupling the
4 calling party to the first telephone device by a
5 telephone line to monitor the telephone line for a hook
6 flash.

1 4. The method of claim 3, further comprising the step
2 of setting a hook flash mid-call trigger on said

3 telephone line at the telephone switch prior to
4 performing the step of detecting a hook flash.

1 5. The method of claim 3, wherein the step of
2 transmitting call related data to the second computer
3 includes:

4 operating the telephone switch in response to
5 activation of a mid-call trigger to send a message to a
6 service control point;

7 operating the service control point to send a
8 message to a server; and

9 operating the server to transmit said call
10 related data to the second computer.

1 6. The method of claim 5, wherein the telephone switch
2 sends a telephone number received from the first
3 receiving party with the message sent to the service
4 control point, the method further comprising:

5 operating the service control point to
6 determine the status of the telephone line identified by
7 the telephone number.

1 7. The method of claim 6, wherein the step of operating
2 the service control point to determine the status of the
3 telephone line includes:

4 operating the service control point to transmit
5 a monitor for change message to the telephone switch; and

6 receiving from the telephone switch a message
7 indicating the status of the telephone line identified by
8 said telephone number.

1 8. The method of claim 6, wherein the step of
2 establishing a voice connection between the calling party
3 and the second telephone device includes:

4 operating the service control point to instruct
5 the telephone switch to establish a telephone call
6 between the first receiving party and the party
7 identified by said telephone number;

8 operating the telephone switch to detect an
9 additional hook flash; and

10 in response to detecting the additional hook
11 flash, operating the telephone switch to add the calling
12 party to the telephone call established between the first
13 receiving party and the party identified by said
14 telephone number.

1 9. The method of claim 8, wherein the party identified
2 by said telephone number is the second receiving party.

1 10. The method of claim 1, wherein the step of
2 transmitting call related data to the second computer
3 includes:

4 operating a server to receive a telephone
5 number from the first receiving party;

6 operating the server to look-up an address of
7 the second computer from the received telephone number;
8 and

9 generating a message to the second computer
10 including said address and said call related data.

1 11. The method of claim 10, further comprising the step
2 of:

3 transmitting the generated message to the
4 second computer using a communications network which
5 support Internet Protocol communications.

1 12. The method of claim 10, further comprising, prior to
2 operating the server to receive said telephone number:

3 operating a telephone switch coupled to the
4 first telephone device to transmit said telephone number
5 to a service control point; and

6 operating the service control point to transmit
7 said telephone number to the server.

1 13. The method of claim 12, wherein the step of
2 establishing a voice connection between the calling party
3 and the second telephone device includes:

4 operating the service control point to control
5 the telephone switch to initiate a telephone call to the
6 second telephone device using said telephone number.

1 14. The method of claim 13, wherein the step of
2 establishing a voice connection between the calling party
3 and the second telephone device includes:

4 operating the telephone switch to initiate a
5 telephone call to the second telephone device using said
6 telephone number.

1 15. The method of claim 1, wherein the step of
2 establishing a voice connection between the calling party
3 and the second telephone device includes:

4 determining the status of a telephone line
5 coupled to the second telephone device.

1 16. The method of claim 15, wherein the step of
2 determining the status of the telephone line includes:

3 operating a serve to determine the status of
4 said telephone line from the second computer, the second
5 computer being coupled to the second telephone device.

1 17. The method of claim 1, wherein the step of
2 determining the status of the telephone line includes:

3 operating a service control point to send a
4 monitor for change message to a telephone switch; and
5 operating the service control point to receive
6 telephone line status information in response to the
7 monitor for change message.

1 18. A communications method, the communications method
2 comprising:

transmitting a monitor for change message to a telephone switch, the monitor for change message including a first telephone number;

operating the telephone switch to determine the status of a telephone line corresponding to the first telephone number; and

controlling the telephone switch to perform a call routing operation as a function of the determined telephone line status.

19. The method of claim 18, wherein the step of controlling the telephone switch includes:

establishing a call using the first telephone number if it is determined that the telephone line corresponding to the first telephone number is not busy.

20. The method of claim 19, further comprising:

operating a server to transmit call related data to a computer identified as being associated with the first telephone number.

21. The method of claim 18, further comprising the step of:

operating the telephone switch to supply the determined line status to a service control point; and wherein the step of controlling the telephone switch to perform a call routing operation includes: operating the service control point to provide a second telephone number to the

9 telephone switch to be used in said call
10 routing operation if the determined line status
11 indicates that said telephone line is busy.

1 22. The method of claim 21, wherein the step of
2 controlling the telephone switch to perform a call
3 routing operation further includes:
4 operating the service control point to receive
5 the second telephone number from a server including
6 automated call distribution functionality.

1 23. The method of claim 22, further comprising:
2 operating said server to transmit call related
3 data to a computer identified as being associated with
4 the second telephone number.

1 24. The method of claim 18, further comprising, prior
2 to transmitting a monitor for change message,
3 setting a hook flash mid-call trigger at the
4 telephone switch on a telephone line.

1 25. The method of claim 18, further comprising:
2 receiving the first telephone number over said
3 telephone line; and
4 in response to the hook flash mid-call trigger
5 being activated, sending the first telephone number to a
6 service control point.

1 26. The method of claim 25, further comprising:

2 operating the service control point to generate
3 said monitor for change message; and

4 wherein the step of transmitting a monitor for
5 change message to the telephone switch includes:

6 operating the service control point
7 to transmit the monitor for change message
8 including the first telephone number to the
9 telephone switch.

1 27. The method of claim 26, further comprising the step
2 of:

3 operating the service control point to transmit
4 the first telephone number to a server; and

5 operating the server to transmit call related
6 data to a computer associated with the first telephone
7 number.

1 28. The method of claim 26, further comprising the step
2 of:

3 operating the service control point to transmit
4 the first telephone number to a server; and

5 operating the server to transmit call related
6 data to a computer associated with the first telephone
7 number.

1 29. A communications system, comprising:

2 a service control point including instructions
3 to transmit a monitor for change message to a telephone
4 switch, the monitor for change message including a first

5 telephone number and including instructions to control
6 initiation of a call as a function of telephone line
7 status information received in response to the monitor
8 for change message; and

9 a telephone switch including means for
10 processing monitor for change messages, said means
11 operating to control the telephone switch to determine
12 the status of a telephone line corresponding to the first
13 telephone number.

1 30. The communication system of claim 29, wherein the
2 telephone switch includes:

3 means for setting a hook flash mid-call trigger
4 on a telephone line; and

5 means for transmitting a telephone number
6 received by the switch to the service control point in
7 response to activation of the hook flash mid-call
8 trigger.

1 31. The communication system of claim 29, wherein the
2 instructions to transmit a monitor for change message are
3 stored in a call processing record.

1 32. The communications system of claim 29, further
2 comprising:

3 a server including automated call distribution
4 functionality coupled to said service control point.

1 33. The communications system of claim 32, further
2 comprising:

3 a first computer system coupled to the server
4 by a network which supports Internet Protocol
5 communications; and

6 a first telephone device coupled to said
7 telephone switch and said first computer system, the
8 computer system including a telephone application
9 programming interface for interfacing with said first
10 telephone device.

1 34. The communications system of claim 33, further
2 comprising:

3 a second computer system coupled to the server
4 by said network which supports Internet Protocol
5 communications; and

6 a second telephone device coupled to said
7 telephone switch and said first computer system, the
8 computer system including a telephone application
9 programming interface for interfacing with said second
10 telephone device.

1 35. The communications system of claim 34, wherein the
2 server includes a database for each of a plurality of
3 telephone service subscribers, the database including for
4 each telephone service subscriber, a telephone number
5 associated with a telephone device used by the service
6 subscriber and a communications address which can be used

7 to communicate with a computer system used by said
8 service subscriber.

1 36. The communications system of claim 35, wherein the
2 service control point further includes a call processing
3 record for a plurality of the telephone service
4 subscribers for which information is stored in the server
5 database.

1 37. A communications system including:

2 a server including information on a plurality
3 of telephone service subscribers, the information for
4 each of the plurality of telephone service subscribers
5 including a telephone number associated with the
6 telephone service subscriber and a communications address
7 corresponding to a computer used by the telephone service
8 subscriber;

9 a service control point including a call
10 processing record for each of at least some of the
11 plurality of telephone service subscribers for which
12 information is stored in the server, the service control
13 point being coupled to the server by a first
14 communications network; and

15 a telephone switch coupled to the service
16 control point and to at least one telephone device
17 associated with a telephone service subscriber, the
18 telephone switch having a hook flash mid-call trigger set
19 on at least one telephone line associated with a

20 telephone service subscriber for which information is
21 stored in said server.

1 38. The communications system of claim 37, wherein at
2 least one of the call processing records stored in said
3 service control point includes instructions for sending a
4 monitor for change message to said telephone switch in
5 response to receiving a message from said telephone
6 switch indicating that the hook flash mid-call trigger
7 was activated.

1 39. A communications system, the communications system
2 including:

3 a telephone switch having a hook flash midcall
4 trigger set on a telephone line; and

5 a service control point coupled to the
6 telephone switch, the service control point including a
7 call processing record, the call processing record
8 including instructions to send a monitor for change
9 message to said telephone switch in response to the
10 service control point receiving a message from said
11 telephone switch that was generated in response to
12 activation of said hook flash midcall trigger.

1 40. The communication system of claim 39, further
2 comprising:

3 a server including a routine for sending call
4 related information to a computer system associated with
5 a telephone number; and

6 wherein the call processing record in said
7 service control point further includes instructions for
8 controlling the service control point to transmit a
9 telephone number, included in said message from said
10 telephone switch, to said server.

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